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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,666	01/10/2005	Yuichi Komuro	01165.0933	9409
7590 08/28/2008 Finnegan Henderson Farabow Garrett & Dunner 1300 I Street NW Washington, DC 20005-3315				
			EXAMINER	
			CHOI, PETER Y	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			08/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/520,666

Applicant(s)

KOMURO ET AL

Examiner

Peter Y. Choi

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 2 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date 06/02/08 and 08/04/08
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as obvious over JP 08-260327 to Ikezawa in view of USPN 4,970,104 to Radwanski.

Regarding claims 1 and 2, Ikezawa teaches a wiper of a nonwoven fabric consisting of continuous filament fibers of cupra-ammonium rayon, with no binding materials, which filament fibers are entangled with each other with a high-pressure water jet stream, wherein the nonwoven fabric has an amount of material dissolved therefrom into acetone is 340 mg/kg or less or 190 mg/kg or less and the wiper is used on applications which are clean (see entire document including paragraphs 0001, 0002, 0006-0016, 0019, 0020, 0027-0029, 0044-0047, 0050, 0052). It should be noted that Applicants' specification teaches that if the cellulose filament fiber is cupra-ammonium and is 40% by weight or more, and formed by a high-pressure water jet stream, then the water absorption becomes 8 ml/g (see page 8 of Applicants' specification). Therefore, the limitation that the water absorption is 8 ml/g or more and 9 ml/g or more appears to be inherent to the structure of the prior art, absent evidence to the contrary.

Regarding claims 1 and 2, Ikezawa does not appear to teach that a buffer plate having an opening degree in a range of from 10 to 47% is placed on a web of the nonwoven fabric supported by a net and the water jet stream is applied to the nonwoven fabric web from above the

buffer plate. Since Ikezawa does not teach the specific apparatus for hydroentangling the fabric, it would have been necessary and therefore obvious to look to the prior art for conventional hydroentangling processes. Radwanski teaches that it was known in the cellulosic nonwoven wiper art to form a nonwoven web suitable for use as a wiper comprising cellulose fibers, wherein the wiper is formed by a hydroentangling process which binds the web by spot-entangle bonding the web, and without conventional bonding means (Radwanski, column 1 lines 6-29, column 4 line 51 to column 6 line 32, column 7 line 23 to column 8 line 35, column 8 line 56 to column 9 line 14, column 11 line 63 to column 12 line 45, column 13 line 63 to column 14 line 2). Radwanski teaches that the hydroentangling process utilizes a perforated member, with the web to be bonded positioned adjacent or close to the perforated member, and with water jets passed through the openings in the perforated member to form the spot entangle bonds (Id., column 7 lines 23-41). Radwanski teaches that a fabric formed by this process retains high overall bulk, and is cloth-like and resilient, yet retains good hand and drape properties after bonding (Id., column 5 lines 9-34). It would have been obvious to one of ordinary skill in the cellulosic nonwoven wiper art at the time the invention was made to form the cellulosic nonwoven wiper of Ikezawa, wherein the wiper is formed by the apparatus and process as taught by Radwanski, motivated by the desire of forming a conventional cellulosic nonwoven wiper with a hydroentangling process and apparatus known in the art to be predictably suitable in forming a wiper which has high overall bulk, and is cloth-like and resilient, yet retains good hand and drape properties after bonding.

Regarding claims 1 and 2, although the prior art does not specifically teach that the opening degree is in a range of from 10 to 47%, the prior art teaches that the bonding area can be

increased if additional strength is desired (Id., column 13 lines 23-65). It would have been obvious to one of ordinary skill in the cellulosic nonwoven wiper art at the time the invention was made to vary the size of the openings, motivated by the desire of varying the amount of spot entangling and the size of the entanglements in the cellulosic nonwoven wiper and additionally adding additional strength.

Additionally, regarding claims 1 and 2, although the prior art does not appear to teach the specific claimed process, it should be noted that the claimed limitation is a product by process limitation. Absent a showing to the contrary, it is Examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. The burden has been shifted to Applicant to show unobvious difference between the claimed product and the prior art product. The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if Applicant intends to rely on Examples in the specification or in a submitted declaration to show unobviousness, Applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 1 and 2, the prior art does not appear to specifically teach that the amount of micro-matter of 100 μ m or more falling-off therefrom is 20,000 pieces/m² or less or

14,000 pieces/m² or less as measured by a method using a supersonic wave. Although the prior art does not disclose the claimed properties, the claimed properties are deemed to be inherent to the structure in the prior art since the prior art teaches an invention with a substantially similar structure and chemical composition (nonwoven wipe comprising cupra-ammonium fibers which are spot entangled with each other by a high-pressure water jet stream) as the claimed invention.

Claim Rejections - 35 USC § 103

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as obvious over Ikezawa in view of Radwanski and further in view of USPN 4,275,105 to Boyd.

Regarding claims 1 and 2, in the event it is shown that the amount of micro-matter of 100µm or more falling-off therefrom is 20,000 pieces/m² or less or 14,000 pieces/m² or less as measured by a method using a supersonic wave is not inherent to the invention of the prior art, Boyd teaches a substantially similar wipe comprising a binderless nonwoven rayon web formed by hydraulic needling, wherein the rayon web is used for wiping, and wherein the lint release is greatly reduced and the lint release was 16 mg/m² (Boyd, column 1 lines 7-36, column 2 lines 49-68, column 4 line 39 to column 5 line 17, column 5 lines 53-65, column 6 line 66 to column 7 line 6, column 9 lines 11-34, Examples 1-12, Tables III-XI, claim 1). As best Examiner can determine, since the binderless hydraulically needled nonwoven rayon web of Boyd appears to be substantially similar to the rayon wiper of the claimed invention, the lint release of Boyd appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary. Therefore, it would have been obvious to one of ordinary skill in the wipe art at the time the invention was made to form the wiper of a nonwoven fabric of the prior art, wherein the

nonwoven fabric has the lint release values as taught by Boyd, motivated by the desire of forming a conventional wipe which is soft, pliable, comfortable, and substantially free of particulate discharge. Additionally, it should be noted that the lint release of the invention of the prior art appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as obvious over Boyd in view of USPN 3,906,130 to Tsurumi and further in view of Radwanski.

Regarding claims 1 and 2, Boyd teaches a wiper of a nonwoven fabric consisting of filament fibers of rayon, with no binding materials, which filament fibers are entangled with each other with a high-pressure water jet stream, wherein the nonwoven fabric has an amount of material dissolved therefrom into acetone is 340 mg/kg or less or 190 mg/kg or less and the wiper is used on applications which are clean (see entire document including column 1 lines 7-36, column 2 lines 49-68, column 4 line 39 to column 5 line 17, column 5 lines 53-65, column 6 line 66 to column 7 line 6, column 9 lines 11-34, Examples 1-12, Tables III-XI, claim 1). Boyd appears to teach that the water absorption is 8 ml/g or more and 9 ml/g (Examples 1-12, Tables III-XI). As best Examiner can determine, since the binderless hydraulically needled nonwoven rayon web of Boyd appears to be substantially similar to the rayon wiper of the claimed invention, the lint release of Boyd appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary.

Regarding claims 1 and 2, the prior art does not appear to specifically teach that the rayon continuous filaments comprise cuprammonium rayon continuous filaments. However, the prior

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art teaches that the binderless hydraulically needled nonwoven rayon web may comprise the material taught in USPN 3,906,130 to Tsurumi. Tsurumi teaches a binderless hydraulically entangled nonwoven rayon web wherein the web is formed of cuprammonium continuous filaments (Tsurumi, column 1 lines 6-37, column 4 line 63 to column 5 line 9, column 8 line 20 to column 12 line 50). Therefore, it would have been obvious to one of ordinary skill in the wiper art at the time the invention was made to form the wiper of a nonwoven fabric of Boyd, wherein the wiper comprises cuprammonium rayon continuous filaments as taught by Tsurumi, as Boyd expressly suggests and teaches that the binderless hydraulically entangled nonwoven cuprammonium rayon web of Tsurumi was suitable for the invention of Boyd.

It should be noted that the Applicants' specification teaches that if the cellulose filament fiber is cupra-ammonium and is 40% by weight or more, and formed by a high-pressure water jet stream, then the water absorption becomes 8 ml/g (*see* page 8 of Applicants' specification). Therefore, the limitation that the water absorption is 8 ml/g or more and 9 ml/g or more appears to be inherent to the structure of the prior art combination, absent evidence to the contrary. Additionally, it should be noted that the lint release of the invention of Boyd in view of Tsurumi appears to be substantially similar to the claimed micro-matter fall-off values, absent evidence to the contrary.

Regarding claims 1 and 2, the prior art does not appear to teach that a buffer plate having an opening degree in a range of from 10 to 47% is placed on a web of the nonwoven fabric supported by a net and the water jet stream is applied to the nonwoven fabric web from above the buffer plate. Since the prior art does not teach the specific apparatus for hydroentangling the fabric, it would have been necessary and therefore obvious to look to the prior art for

conventional hydroentangling processes. Radwanski teaches that it was known in the cellulosic nonwoven wiper art to form a nonwoven web suitable for use as a wiper comprising cellulose fibers, wherein the wiper is formed by a hydroentangling process which binds the web by spot-entangle bonding the web, and without conventional bonding means (Radwanski, column 1 lines 6-29, column 4 line 51 to column 6 line 32, column 7 line 23 to column 8 line 35, column 8 line 56 to column 9 line 14, column 11 line 63 to column 12 line 45, column 13 line 63 to column 14 line 2). Radwanski teaches that the hydroentangling process utilizes a perforated member, with the web to be bonded positioned adjacent or close to the perforated member, and with water jets passed through the openings in the perforated member to form the spot entangle bonds (Id., column 7 lines 23-41). Radwanski teaches that a fabric formed by this process retains high overall bulk, and is cloth-like and resilient, yet retains good hand and drape properties after bonding (Id., column 5 lines 9-34). It would have been obvious to one of ordinary skill in the cellulosic nonwoven wiper art at the time the invention was made to form the cellulosic nonwoven wiper of the prior art, wherein the wiper is formed by the apparatus and process as taught by Radwanski, motivated by the desire of forming a conventional cellulosic nonwoven wiper with a hydroentangling process and apparatus known in the art to be predictably suitable in forming a wiper which has high overall bulk, and is cloth-like and resilient, yet retains good hand and drape properties after bonding.

Regarding claims 1 and 2, although the prior art does not specifically teach that the opening degree is in a range of from 10 to 47%, the prior art teaches that the bonding area can be increased if additional strength is desired (Id., column 13 lines 23-65). It would have been obvious to one of ordinary skill in the cellulosic nonwoven wiper art at the time the invention

was made to vary the size of the openings, motivated by the desire of varying the amount of spot entangling and the size of the entanglements in the cellulosic nonwoven wiper and additionally adding additional strength.

Additionally, regarding claims 1 and 2, although the prior art does not appear to teach the specific claimed process, it should be noted that the claimed limitation is a product by process limitation. Absent a showing to the contrary, it is Examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. The burden has been shifted to Applicant to show unobvious difference between the claimed product and the prior art product. The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if Applicant intends to rely on Examples in the specification or in a submitted declaration to show unobviousness, Applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Response to Arguments

5. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Y. Choi whose telephone number is (571)272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/
Primary Examiner, Art Unit 1794

/Peter Y Choi/
Examiner, Art Unit 1794